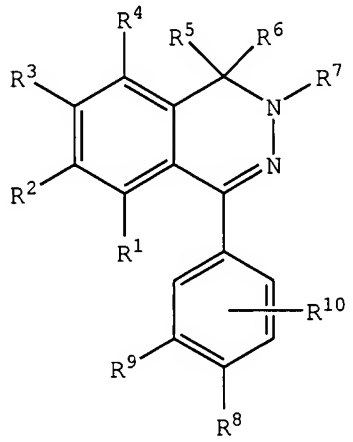
This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-9 (canceled).

Claim 10 (currently amended): A method for treating a patient having a disorder associated with excessive activation of the α-amino-3-hydroxy-5-methyl-4-isooxazolepropionic acid (AMPA) subtype of the ionotropic excitatory amino acid (EAA) receptors, the method comprising administering to the patient, in an effective amount to alleviate the symptoms of the disorder, a compound of Formula I:




wherein

$R^1$, $R^2$, $R^3$ and $R^4$ are independently

H,

HO,

$R^{11}O$-,

halogen,

C1-C3-alkyl,

$CF_3$,

$R^{12}CO_2$-,

$R^{12}O_2C$-,

$R^{12}CO$-,

$R^{12}CONH$-,

$R^{12}NHCO$-,

$R^{12}NHCO_2$-,

$R^{12}OCONH$-,

$R^{12}O_2S$-,

$R^{12}OS$-, or

$R^{13}R^{14}N$-; or

$R^1$ and $R^2$, or $R^2$ and $R^3$, or $R^3$ and $R^4$ taken together can be

$-SCH_2S-$,

$-SCH_2O-$,

$-OCH_2S-$,

$-SCH_2CH_2S-$,

$-SCH_2CH_2O-$, or

$-OCH_2CH_2S-$;

wherein at least one of $R^1$, $R^2$, $R^3$ or $R^4$ must be a C1-C3-alkylthio group,

$R^5$ and $R^6$ are independently

H,

C1-C6-alkyl,

C3-C6-alkenyl,

C3-C6-cycloalkyl, or

phenyl or substituted phenyl, wherein the phenyl is substituted with one or two substituents selected from the group consisting of C1-C3-alkyl, halogen, $R^{11}O$-, $CF_3$,

$R^{12}O_2S$-, $R^{12}OS$-, $R^{12}CO$, $R^{12}CO_2$-, $R^{12}O_2C$-, $R^{12}CONH$-, $R^{12}NHCO$-, $R^{12}NHCO_2$-, $R^{12}OCONH$-, and $R^{13}R^{14}N$-; or

$R^5$ and $R^6$ taken together can be C3-C6-cycloalkyl;

$R^7$ is

$R^{13}R^{14}NCO$-,

$R^{13}R^{14}NCS$-,

$R^{13}R^{14}N(HCR^{15})$-,

$R^{15}OCO$-,

$R^{13}CO$-,

$R^{13}R^{14}NCH_2CO$-,

$R^{12}O_2C-(CH_2)_n$-,

$R^{13}R^{14}NCO-(CH_2)_n$-,

$NC-(CH_2)_n$-,

H,

C1-C6-alkyl,

C3-C6-alkenyl, or

C3-C6-cycloalkyl; or

$R^6$ and $R^7$ taken together can be

$-(CH_2)_mCH_2(R^{13})NCO$-,

$-(CH_2)_mCH_2OCO$-, or

$-(CH_2)_mCH_2CH_2CO$-;

$R^8$ and $R^9$ are independently

H,

$R^{13}R^{14}N$-,

$R^{13}R^{14}N(HCR^{15})$-,

$R^{12}HNCO$-, or

$R^{12}CONH$-;

$R^{10}$ is

H,

halogen,
HO,
$R^{11}O$-,
$R^{13}R^{14}N$-,
C1-C3-alkyl,
$CF_3$,
$R^{12}CO_2$-,
$R^{12}CO$-, or
$R^{12}CONH$-;

$R^{11}$ is C1-C3-alkyl;

$R^{12}$ is H or C1-C3-alkyl;

$R^{13}$ and $R^{14}$ are independently
H,
C1-C10-alkyl,
C1-C6-perfluoroalkyl,
C3-C10-alkenyl, or
C3-C6-cycloalkyl; or

$R^{13}$ and $R^{14}$ taken together can be C3-C6-cycloalkyl;

$R^{15}$ is C1-C6-alkyl, C3-C6-alkenyl, or C3-C6-cycloalkyl;

n is 1 to 6;

m is 0 to 2;

or pharmaceutically acceptable salts thereof;

wherein $R^8$ and $R^9$ cannot both be H,

in combination with a pharmaceutically acceptable carrier.

Claim 11 (previously presented): The method of claim 10 wherein, in the compound of Formula I, one of four substituents of $R^1$, $R^2$, $R^3$ and $R^4$ must be C1-C3-alkylthio group, the other

substituents are independently H, $R^{11}O$-, $R^{11}S$-, halogen, or C1-C3-alkyl;

$R^2$ and $R^3$ taken together can be $-SCH_2S-$, $SCH_2O-$, or $-OCH_2S-$;

$R^7$ is

$R^{13}R^{14}NCO-$,

$R^{13}R^{14}NCS-$,

$R^{13}R^{14}N(HCR^{15})-$,

$R^{15}OCO-$,

$R^{13}CO-$, or

H;

$R^8$ and $R^9$ are independently H, $H_2N-$ or $CH_3CONH-$; or pharmaceutically acceptable salts thereof.

Claim 12 (original): The method of claim 11 wherein the compound of Formula I is selected from the group consisting of 4-(4-Aminophenyl)-1,2-dihydro-1-methyl-2-ethylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-1-methyl-2-*n*-propylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-1-methyl-2-*n*-butylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-2-ethylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-2-*n*-propylcarbamoyl-6-methylthiophthalazine, and 4-(4-Aminophenyl)-1,2-dihydro-2-*n*-butylcarbamoyl-6-methylthiophthalazine.

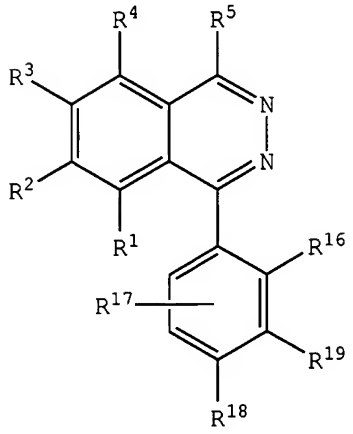
Claim 13 (original): The method of claim 10 wherein the disorder is selected from the group consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative, neuropsychopharmacological and functional disorders.

Claim 14 (original): The method of claim 11 wherein the disorder is selected from the group consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative, neuropsychopharmacological and functional disorders.

Claim 15 (original): The method of claim 12 wherein the disorder is selected from the group consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative, neuropsychopharmacological and functional disorders.

Claims 16-24 (canceled).

Claim 25 (previously presented): A method for treating a patient having a disorder associated with excessive activation of the α-amino-3-hydroxy-5-methyl-4-isooxazolepropionic acid (AMPA) subtype of the ionotropic excitatory amino acid (EAA) receptors, the method comprising administering to the patient, in an effective amount to alleviate the symptoms of the disorder, a compound of Formula II:



wherein

$R^1$, $R^2$, $R^3$ and $R^4$ are independently

H,

HO,

$R^{11}O$-,

halogen,

C1-C3-alkyl,

$CF_3$,

$R^{12}CO_2$-,

$R^{12}O_2C$-,

$R^{12}CO$-,

$R^{12}CONH$-,

$R^{12}NHCO$-,

$R^{12}NHCO_2$-,

$R^{12}OCONH$-,

$R^{12}O_2S$-,

$R^{12}OS$-, or

$R^{13}R^{14}N$-; or

$R^1$ and $R^2$, or $R^2$ and $R^3$, or $R^3$ and $R^4$ taken together can be

$-SCH_2S$-,

$-SCH_2O-$,

$-OCH_2S-$,

$-SCH_2CH_2S-$,

$-SCH_2CH_2O-$, or

$-OCH_2CH_2S-$;

wherein at least one of $R^1$, $R^2$, $R^3$ or $R^4$ must be a C1-C3-alkylthio group;

$R^5$ is

H,

C1-C6-alkyl,

C3-C6-alkenyl,

C3-C6-cycloalkyl,

phenyl or substituted phenyl, wherein the phenyl is substituted with one or two substituents selected from the group consisting of C1-C3-alkyl, halogen, $R^{11}O-$, $CF_3-$, $R^{12}O_2S-$, $R^{12}OS-$, $R^{12}CO$, $R^{12}CO_2-$, $R^{12}O_2C-$, $R^{12}CONH-$, $R^{12}NHCO-$, $R^{12}NHCO_2-$, $R^{12}OCONH-$, or $R^{13}R^{14}N-$;

$R^{11}$ is C1-C3-alkyl;

$R^{12}$ is H or C1-C3-alkyl;

$R^{13}$ and $R^{14}$ are independently

H,

C1-C10-alkyl,

C1-C6-perfluoroalkyl,

C3-C10-alkenyl, or

C3-C6-cycloalkyl; or

$R^{13}$ and $R^{14}$ taken together can be C3-C6-cycloalkyl;

$R^{15}$ is C1-C6-alkyl, C3-C6-alkenyl, or C3-C6-cycloalkyl;

$R^{16}$ and $R^{17}$ are independently

H,

halogen,

C1-C3-alkyl,

$R^{12}O$-,

$CF_3$-, or

$R^{12}CO_2$-;

$R^{18}$ and $R^{19}$ are independently

H,

$R^{13}R^{14}N$-,

$R^{13}HNC(NH)$-, or

$R^{12}CONH$-;

or pharmaceutically acceptable salts thereof;

wherein $R^{18}$ and $R^{19}$ cannot both be H,

in combination with a pharmaceutically acceptable carrier.

Claim 26 (previously presented): The method of claim 25 wherein, in the compound of Formula II, one of four substituents of $R^1$, $R^2$, $R^3$ and $R^4$ must be a C1-C3-alkylthio group, the other substituents are independently H, $R^{11}O$-, $R^{11}S$-, halogen, or C1-C3-alkyl;

$R^2$ and $R^3$ taken together can be $-SCH_2S-$, $-SCH_2O-$, or $-OCH_2S-$;

$R^{18}$ and $R^{19}$ are independently H, $H_2N$-, or $CH_3CONH$-; or pharmaceutically acceptable salts thereof.

Claim 27 (original): The method of claim 26 wherein the compound of Formula II is selected from the group consisting of

1-(4-Aminophenyl)-6-methylthiophthalazine, 1-(4-Acetylaminophenyl)-6-methylthiophthalazine, 1-(4-Aminophenyl)-7-methylthiophthalazine, 1-(4-Aminophenyl)-4-methyl-6-methylthiophthalazine, 1-(4-Acetylaminophenyl)-4-methyl-6-methylthiophthalazine, 1-(4-Aminophenyl)-4-methyl-7-

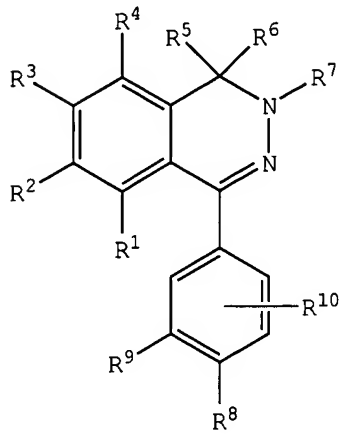
methylthiophthalazine, 1-(4-Acetylaminophenyl)-4-methyl-7-methylthiophthalazine.

Claim 28 (original): The method of claim 25 wherein the disorder is selected from the group consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative, neuropsychopharmacological and functional disorders.

Claim 29 (original): The method of claim 26 wherein the disorder is selected from the group consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative, neuropsychopharmacological and functional disorders.

Claim 30 (original): The method of claim 27 wherein the disorder is selected from the group consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative, neuropsychopharmacological and functional disorders.

Claim 31 (currently amended): A method for decreasing the excessive flux of ions through an α-amino-3-hydroxy-5-methyl-4-isooxazolepropionic acid (AMPA) subtype of the ionotropic excitatory amino acid (EAA) receptors, the method comprising contacting a cortical cell with an effective amount of a compound of Formula I:



wherein

$R^1$, $R^2$, $R^3$ and $R^4$ are independently

H,

HO,

$R^{11}O$-,

halogen,

C1-C3-alkyl,

$CF_3$,

$R^{12}CO_2$-,

$R^{12}O_2C$-,

$R^{12}CO$-,

$R^{12}CONH$-,

$R^{12}NHCO$-,

$R^{12}NHCO_2$-,

$R^{12}OCONH$-,

$R^{12}O_2S$-,

$R^{12}OS$-, or

$R^{13}R^{14}N$-; or

$R^1$ and $R^2$, or $R^2$ and $R^3$, or $R^3$ and $R^4$ taken together can be

$-SCH_2S$-,

$-SCH_2O-$,

$-OCH_2S-$,

$-SCH_2CH_2S-$,

$-SCH_2CH_2O-$, or

$-OCH_2CH_2S-$;

wherein at least one of $R^1$, $R^2$, $R^3$ or $R^4$ must be a C1-C3-alkylthio group,

$R^5$ and $R^6$ are independently

H,

C1-C6-alkyl,

C3-C6-alkenyl,

C3-C6-cycloalkyl, or

phenyl or substituted phenyl, wherein the phenyl is substituted with one or two substituents selected from the group consisting of C1-C3-alkyl, halogen, $R^{11}O-$, $CF_3$, $R^{12}O_2S-$, $R^{12}OS-$, $R^{12}CO$, $R^{12}CO_2-$, $R^{12}O_2C-$, $R^{12}CONH-$, $R^{12}NHCO-$, $R^{12}NHCO_2-$, $R^{12}OCONH-$, and $R^{13}R^{14}N-$; or

$R^5$ and $R^6$ taken together can be C3-C6-cycloalkyl;

$R^7$ is

$R^{13}R^{14}NCO-$,

$R^{13}R^{14}NCS-$,

$R^{13}R^{14}N(HCR^{15})-$,

$R^{15}OCO-$,

$R^{13}CO-$,

$R^{13}R^{14}NCH_2CO-$,

$R^{12}O_2C-(CH_2)_n-$,

$R^{13}R^{14}NCO-(CH_2)_n-$,

$NC-(CH_2)_n-$,

H,

C1-C6-alkyl,

C3-C6-alkenyl, or

C3-C6-cycloalkyl; or

$R^6$ and $R^7$ taken together can be

$-(CH_2)_mCH_2(R^{13})NCO-$,

$-(CH_2)_mCH_2OCO-$, or

$-(CH_2)_mCH_2CH_2CO-$;

$R^8$ and $R^9$ are independently

H,

$R^{13}R^{14}N-$,

$R^{13}R^{14}N(HCR^{15})-$,

$R^{12}HNCO-$, or

$R^{12}CONH-$;

$R^{10}$ is

H,

halogen,

HO,

$R^{11}O-$,

$R^{13}R^{14}N-$,

C1-C3-alkyl,

$CF_3$,

$R^{12}CO_2-$,

$R^{12}CO-$, or

$R^{12}CONH-$;

$R^{11}$ is C1-C3-alkyl;

$R^{12}$ is H or C1-C3-alkyl;

$R^{13}$ and $R^{14}$ are independently

H,

C1-C10-alkyl,

C1-C6-perfluoroalkyl,

C3-C10-alkenyl, or

C3-C6-cycloalkyl; or

$R^{13}$ and $R^{14}$ taken together can be C3-C6-cycloalkyl;

$R^{15}$ is C1-C6-alkyl, C3-C6-alkenyl, or C3-C6-cycloalkyl;

n is 1 to 6;

m is 0 to 2;

or pharmaceutically acceptable salts thereof;

wherein $R^8$ and $R^9$ cannot both be H,

in combination with a pharmaceutically acceptable carrier

so that the excessive flux of ions through the AMPA receptor is decreased.

Claim 32 (previously presented): The method of claim 31 wherein, in the compound of Formula I, one of four substituents of $R^1$, $R^2$, $R^3$ and $R^4$ must be C1-C3-alkylthio group, the other substituents are independently H, $R^{11}O$-, $R^{11}S$-, halogen or C1-C3-alkyl;

$R^2$ and $R^3$ taken together can be $-SCH_2S-$, $SCH_2O-$, or $-OCH_2S-$;

$R^7$ is

$R^{13}R^{14}NCO-$,

$R^{13}R^{14}NCS-$,

$R^{13}R^{14}N(HCR^{15})-$,

$R^{15}OCO-$,

$R^{13}CO-$, or

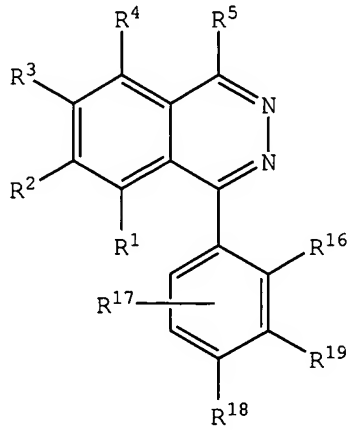
H;

$R^8$ and $R^9$ are independently H, $H_2N-$ or $CH_3CONH-$; or pharmaceutically acceptable salts thereof.

Claim 33 (previously presented): The method of claim 32 wherein the compound of Formula I is selected from the group consisting of

4-(4-Aminophenyl)-1,2-dihydro-1-methyl-2-ethylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-1-methyl-2-*n*-propylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-1-methyl-2-*n*-butylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-2-ethylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-2-*n*-propylcarbamoyl-6-methylthiophthalazine, and 4-(4-Aminophenyl)-1,2-dihydro-2-*n*-butylcarbamoyl-6-methylthiophthalazine.

Claim 34 (previously presented): A method for decreasing the excessive flux of ions through an α-amino-3-hydroxy-5-methyl-4-isooxazolepropionic acid (AMPA) subtype of the ionotropic excitatory amino acid (EAA) receptors, the method comprising contacting a cortical cell with an effective amount of a compound of Formula II:




wherein

$R^1$, $R^2$, $R^3$ and $R^4$ are independently

H,

HO,

$R^{11}O$-,

halogen,

C1-C3-alkyl,

$CF_3$,

$R^{12}CO_2$-,

$R^{12}O_2C$-,

$R^{12}CO$-,

$R^{12}CONH$-,

$R^{12}NHCO$-,

$R^{12}NHCO_2$-,

$R^{12}OCONH$-,

$R^{12}O_2S$-,

$R^{12}OS$-, or

$R^{13}R^{14}N$-; or

$R^1$ and $R^2$, or $R^2$ and $R^3$, or $R^3$ and $R^4$ taken together can be

$-SCH_2S-$,

$-SCH_2O-$,

$-OCH_2S-$,

$-SCH_2CH_2S-$,

$-SCH_2CH_2O-$, or

$-OCH_2CH_2S-$;

wherein at least one of $R^1$, $R^2$, $R^3$ or $R^4$ must be a C1-C3-alkylthio group;

$R^5$ is

H,

C1-C6-alkyl,

C3-C6-alkenyl,

C3-C6-cycloalkyl,

phenyl or substituted phenyl, wherein the phenyl is substituted with one or two substituents selected from the group consisting of C1-C3-alkyl, halogen, $R^{11}O$-, $CF_3$-, $R^{12}O_2S$-, $R^{12}OS$-, $R^{12}CO$, $R^{12}CO_2$-, $R^{12}O_2C$-, $R^{12}CONH$-, $R^{12}NHCO$-, $R^{12}NHCO_2$-, $R^{12}OCONH$-, or $R^{13}R^{14}N$-;

$R^{11}$ is C1-C3-alkyl;

$R^{12}$ is H or C1-C3-alkyl;

$R^{13}$ and $R^{14}$ are independently

H,

C1-C10-alkyl,

C1-C6-perfluoroalkyl,

C3-C10-alkenyl, or

C3-C6-cycloalkyl; or

$R^{13}$ and $R^{14}$ taken together can be C3-C6-cycloalkyl;

$R^{15}$ is C1-C6-alkyl, C3-C6-alkenyl, or C3-C6-cycloalkyl;

$R^{16}$ and $R^{17}$ are independently

H,

halogen,

C1-C3-alkyl,

$R^{12}O$-,

$CF_3$-, or

$R^{12}CO_2$-;

$R^{18}$ and $R^{19}$ are independently

H,

$R^{13}R^{14}N$-,

$R^{13}HNC(NH)$-, or

$R^{12}CONH$-;

or pharmaceutically acceptable salts thereof;

wherein $R^{18}$ and $R^{19}$ cannot both be H,

in combination with a pharmaceutically acceptable carrier

so that the excessive flux of ions through the AMPA receptor is decreased.

Claim 35 (previously presented): The method of claim 34 wherein, in the compound of Formula II, one of four substituents of $R^1$, $R^2$, $R^3$ and $R^4$ must be a C1-C3-alkylthio group, the other substituents are independently H, $R^{11}O$-, $R^{11}S$-, halogen, or C1-C3-alkyl;

$R^2$ and $R^3$ taken together can be $-SCH_2S-$, $-SCH_2O-$, or $-OCH_2S-$;

$R^{18}$ and $R^{19}$ are independently H, $H_2N$-, or $CH_3CONH$-; or pharmaceutically acceptable salts thereof.

Claim 36 (previously presented): The method of claim 35 wherein the compound of Formula II is selected from the group consisting of

1-(4-Aminophenyl)-6-methylthiophthalazine, 1-(4-Acetylaminophenyl)-6-methylthiophthalazine, 1-(4-Aminophenyl)-7-methylthiophthalazine, 1-(4-Aminophenyl)-4-methyl-6-methylthiophthalazine, 1-(4-Acetylaminophenyl)-4-methyl-6-methylthiophthalazine, 1-(4-Aminophenyl)-4-methyl-7-methylthiophthalazine, 1-(4-Acetylaminophenyl)-4-methyl-7-methylthiophthalazine.